F5 Distributed Cloud App Stack

Deploy and Operate a Fleet of Applications and Infrastructure

F5® Distributed Cloud App Stack is a SaaS-based offering that deploys, secures, and operates a fleet of applications across the heterogeneous infrastructure in private, public, telecommunications, and edge clouds. It can scale to a large number of clusters and locations with centralized orchestration, observability, and operations to reduce the complexity of managing a fleet of distributed clusters.

Using a distributed control plane running in F5's global network infrastructure, Distributed Cloud App Stack delivers a logically centralized cloud that can be managed using industry-standard Kubernetes APIs (application programming interfaces). This control plane removes the overhead of many individually managed Kubernetes clusters and allows customers to automate application deployment, scaling, security, and operations across their entire deployment as a "unified cloud."

Distributed Cloud App Stack enables enterprises to leverage best-of-breed cloud services. You can deploy applications across multiple clouds to access key services via a cloud-agnostic distributed application management platform.

Key Benefits of Distributed Cloud App Stack

Operational efficiency via fleet management

Get SaaS-based lifecycle management of applications and infrastructure services across a fleet of distributed sites, along with intent-based policy and configuration.

Immersive applications at the edge or in the network

Move performance-sensitive applications (or portions of apps) to edge sites or the network edge to improve latency and performance. Leverage AI/ML applications on the edge and GPU as a Service in the network.

Security for distributed apps and data

Verify identity across distributed sites that drive policy and encrypt data (at rest and in transit), along with the innovative Blindfold capability that secures secrets and keys.

Seamless scalability

Deploy a purpose-built control plane across F5's globally distributed infrastructure that scales to a large number of application clusters.

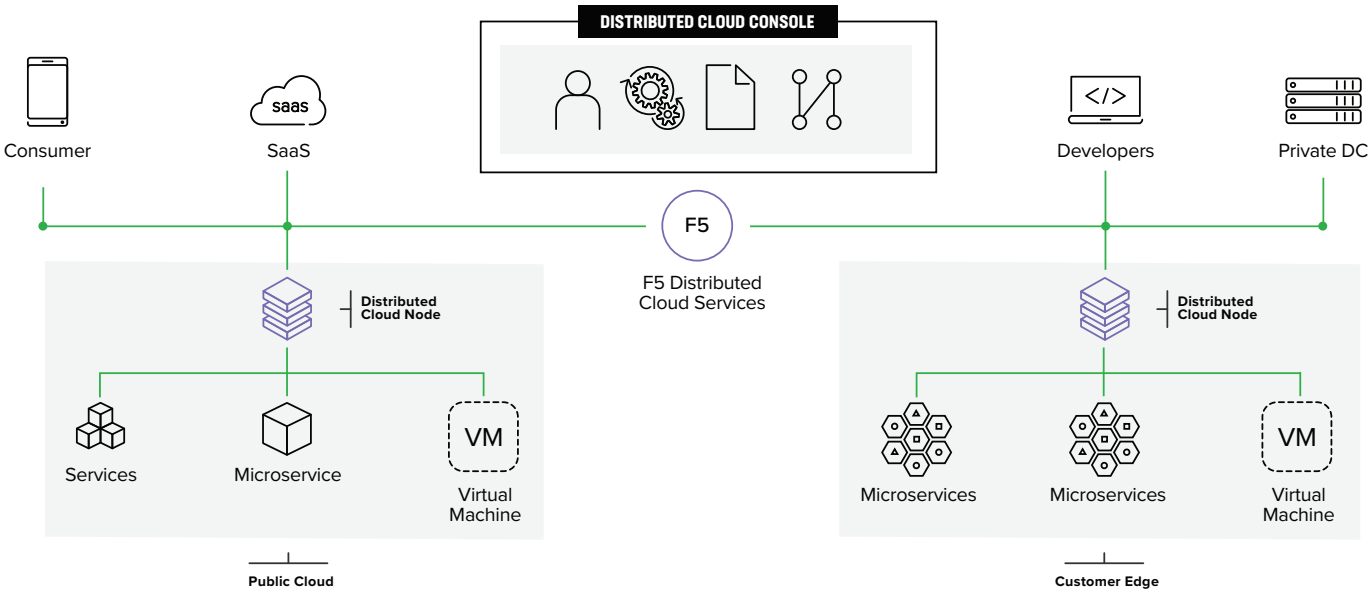

Figure 1: Cloud-native stack for managing distributed workloads

Use cases across clouds, networks, and edge sites

Edge cloud

- Edge application management
- Deployment of AI/ML applications on fleet of edge sites

Multi-cloud

- Multi-cloud application management
- Cloud-native compute infrastructure
- GPU as a Service

Network cloud

- Network edge applications

VERTICALS

F5 Distributed Cloud Services help enterprises across numerous industry verticals distribute cloud-native applications spanning multiple public and private clouds and edge sites—without having to rebuild their software infrastructure.


E-commerce


Healthcare


Finance


Manufacturing


High-tech


Retail


Telecommunications


Automotive


Gaming


Energy

Distributed Cloud App Stack Features

Distributed Cloud App Stack delivers a complete range of services to automate application and infrastructure deployment, scaling, security, and lifecycle management across a vast number of distributed sites.

APPLICATION SERVICES

Distributed application management

Deploy and orchestrate applications across a segment or the entire fleet of clusters. Centralized, SaaS-based management of distributed applications with a single pane of glass and rich observability. Deploy AI/ML applications across a fleet of edge sites.

Continuous delivery and verification

Continuously verify application and infrastructure health to generate alerts and automatically take actions when anomalies are detected. Integrates with existing CI/CD pipelines and development workflow.

Identity and secrets management

Uniform identity for applications across different multi-cloud and/or edge environments. Manage identity lifecycle for each application instance via automatic certificate rotation, increasing security and operational efficiency.

Container security and isolation

Container-level security services to protect and isolate applications and infrastructure from errant or malicious containers.

Observability

Single pane of glass visibility from application to infrastructure across heterogeneous edge and cloud deployments. Provides granular status of application deployments, infrastructure health, and security/connectivity performance.

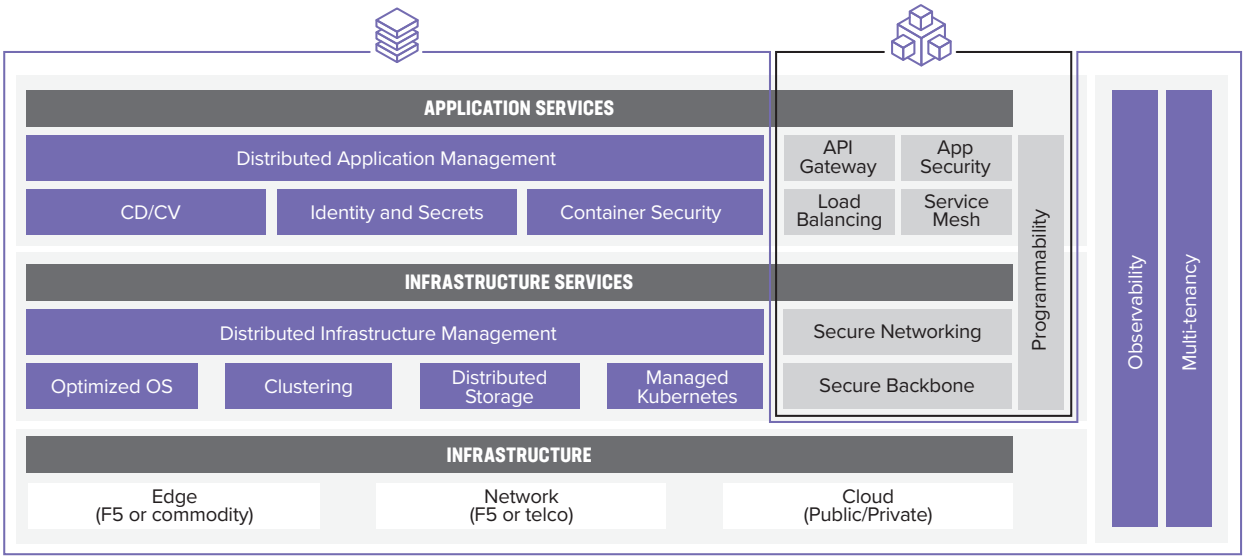

Figure 2: A complete range of networking and security services to connect and secure applications

INFRASTRUCTURE SERVICES

Optimized operating system

A consistent and efficient operating system for deployment across heterogeneous cloud and edge locations, optimized to run virtual machines, containers, and Lambda workloads.

Clustering

Scale compute and storage resources seamlessly by clustering multiple nodes together to match service needs.

Distributed storage

Software-defined storage across nodes and/or clusters. Consistent volumes across heterogeneous storage types.

Multi-tenancy

Run third-party and/or multiple business lines' applications while providing complete isolation of compute, network, and storage resources. Provides the ability to run heterogeneous workloads (containers, VMs) across different namespaces.

Managed Kubernetes environment

Orchestrate and scale infrastructure resources in an automated fashion. Self-healing and progressive rollout with health monitoring for automated rollback.

Distributed infrastructure management

Manage globally distributed and/or heterogeneous infrastructure as a fleet. SaaS-based management with a single pane of glass and rich observability. Supports vGPU resource sharing across applications, namespaces, and tenants.

About F5 Distributed Cloud Services

F5 Distributed Cloud Services are SaaS-based security, networking, and application management services that can be deployed across multi-cloud, on-premises, and edge locations.

For more information on Distributed Cloud App Stack, visit f5.com. Interested in talking to an F5 sales specialist? Contact sales@f5.com today.

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